AMENDMENTS TO THE CLAIMS

1. (currently amended): ~~Biodegradable~~ A biodegradable multi-block copolymer, comprising at least two hydrolysable segments derived from pre-polymers A and B, which segments are linked by a multi-functional chain-extender, ~~and are chosen from the pre-polymers~~

wherein said segments are selected from the group consisting of pre-polymer A, pre-polymer B, ~~and triblock copolymers~~ the triblock ABA, and the triblock BAB, and

wherein the multi-block copolymer is amorphous at physiological (body) conditions.

2. (currently amended): ~~Copolymer according to~~ A copolymer of claim 1, ~~wherein the copolymer~~ which has a glass transition temperature below body temperature at physiological (body) conditions.

3. (currently amended): ~~Copolymer according to claim 1 or 2~~ A copolymer of claim 1, wherein pre-polymer A and/or pre-polymer-B contain ester and/or carbonate and/or anhydride linkages, optionally in combination with polyethers.

4. (currently amended): ~~Copolymer according to any of the preceding claims~~ A copolymer of claim 1, wherein ~~pre-polymer (A)~~ pre-polymer A comprises polyether groups.

5. (currently amended): ~~Copolymer according to any of the preceding claims~~ A copolymer of claim 1, wherein a polyether is present as an additional pre-polymer.

6. (currently amended): ~~Copolymer according to any of the preceding claims~~ A copolymer of claim 1, wherein ~~pre-polymer (A)~~ pre-polymer A comprises a reaction product of an ester forming monomer selected from the group consisting of diols, dicarboxylic acids and hydroxycarboxylic acids.

7. (currently amended): ~~Copolymer according to any of claims 1-5~~ A copolymer of claim 1, wherein ~~pre-polymer (A)~~ pre-polymer A comprises reaction products of at least one cyclic monomer with at least one non-cyclic initiator selected from the group consisting of diols, dicarboxylic acids and hydroxycarboxylic acids.

8. (currently amended): ~~Copolymer according to~~ A copolymer of claim 7, wherein said cyclic monomer is selected from the group consisting of glycolide, lactide (L, D or DL), ε-caprolactone, δ-valerolactone, trimethylene carbonate, tetramethylene carbonate, 1,4-dioxane-2-one (*para*-dioxanone), 1,5-dioxepane-2-one ~~and/or~~ and cyclic anhydrides ~~such as oxepane-2,7-dione~~.

9. (currently amended): ~~Copolymer according to~~ A copolymer of claim 8 wherein pre-polymer A contains at least two different cyclic monomers~~, preferably one of them being ε-caprolactone~~.

10. (currently amended): ~~Copolymer according to~~ A copolymer of claim 9 wherein pre-polymer A consists of glycolide and ε-caprolactone in a 1:1 weight ratio.

11. (currently amended): ~~Copolymer according to~~ A copolymer of claim [[8]] 9 wherein pre-polymer A consists of glycolide and lactide in a 1:1 weight ratio.

12. (currently amended): ~~Copolymer according to any of previous claims~~ A copolymer of claim 7, wherein said non-cyclic ~~monomer~~ initiator is selected from the group of succinic acid, glutaric acid, adipic acid, sebacic acid, lactic acid, glycolic acid, hydroxybutyric acid, ethylene glycol, diethylene glycol, 1,4-butanediol and 1,6-hexanediol.

13. (currently amended): ~~Copolymer according to any of the claims 3-12~~ A copolymer of claim 4, wherein said polyether groups are selected from the group consisting of PEG (polyethylene glycol), PEG-PPG (polypropylene glycol), PTMG (polytetramethylene ether glycol) and combinations thereof.

14. (currently amended): ~~Copolymer according to~~ A copolymer of claim 13, wherein the polyether group is PEG.

15. (currently amended): ~~Copolymer according to~~ A copolymer of claim 14, wherein PEG is an initiator for ring-opening polymerization with a molecular weight between 150-4000~~, preferably between 150-2000, more preferably between 300-1000~~.

16. (currently amended): ~~Copolymer according to any of previous claims~~ A copolymer of claim 1, wherein ~~pre-polymer (A)~~ pre-polymer A has a number average molecular weight (Mn) between 300 and 30000~~, preferably higher than 500, more preferably between 1000 and 8000~~.

17. (currently amended): ~~Copolymer according to any of the previous claims~~ A copolymer of claim 1, wherein ~~pre-polymer (B)~~ pre-polymer B comprises ε-caprolactone, δ-valerolactone, trimethylene carbonate, para-dioxanone, DL-lactide and/or glycolide.

18. (currently amended): ~~Copolymer according to~~ A copolymer of claim 17, wherein ~~pre-polymer (B)~~ pre-polymer B contains d,l-lactide~~, and is preferably poly(d,l-lactide) or poly(lactide-glycolide (50/50))~~.

19. (currently amended): ~~Copolymer according to claims 17 or 18~~ A copolymer of claim 17, wherein ~~pre-polymer (B)~~ pre-polymer B has a number average molecular weight (Mn) higher than 300~~, preferably higher than 1000, more preferably between 2000 and 8000~~.

20. (currently amended): ~~Copolymer according to any of the claims 16-19~~ A copolymer of claim 16, wherein ~~pre-polymer (B)~~ pre-polymer B is present in an amount of 10-90 wt.%~~, preferably 25-75 wt.%, based on the total weight of the copolymer~~.

21. (currently amended): ~~Copolymer according to any of the previous claims~~ A copolymer of claim 1, having an intrinsic viscosity of at least 0.1 dl/g, ~~preferably~~ and less than 6 dl/g~~, more preferably between 0.2-4 dl/g, more preferably between 0.4-2 dl/g~~.

22. (currently amended): ~~Copolymer according to any of the previous claims~~ A copolymer of claim 1, wherein the chain extender is derived from a difunctional aliphatic compound.

23. (currently amended): ~~Copolymer according to~~ A copolymer of claim 22, wherein the chain-extender is a diisocyanate~~, preferably 1,4-butanediisocyanate~~.

24. (currently amended): ~~Copolymer according to any of the preceding claims~~ A copolymer of claim 1, wherein the pre-polymer segments are randomly distributed in the copolymer.

25. (currently amended): ~~Process~~ A process for preparing a copolymer ~~according to any of the previous claims~~ of claim 1, comprising a chain-extension reaction of ~~pre-polymer (A) and pre-polymer (B)~~ pre-polymer A and pre-polymer B in the presence of ~~the suitable~~ an aliphatic chain extender, whereby a randomly segmented multi-block copolymer is obtained.

26. (currently amended): ~~Process~~ A process for preparing a copolymer ~~according to any of the claims 1-24~~ of claim 1, comprising a coupling reaction, wherein pre-polymers A and B are both diol or diacid terminated and the chain-extender is di-carboxylic acid or diol terminated, respectively, using a coupling agent.

27. (currently amended): ~~Process according to~~ The process of claim 26, wherein the coupling agent is dicyclohexyl carbodiimide (DCC).

28. (currently amended): ~~Process~~ A process for preparing a copolymer ~~according to any of the claims 1-24~~ of claim 1, comprising a coupling reaction, wherein a BAB-pre-polymer is made by reacting a ~~pre-polymer (A)~~ pre-polymer A with monomers which form ~~pre-polymer (B)~~ pre-polymer B, thus obtaining a BAB-tri-block pre-polymer, which is subsequently chain-extended using a multifunctional chain-extender.

29. (currently amended): ~~Process~~ A process for preparing a copolymer ~~according to any of the claims 1-24~~ of claim 1, comprising a coupling reaction, wherein a ABA-pre-polymer is made by reacting a ~~pre-polymer (B)~~ pre-polymer B with monomers that form ~~pre-polymer (A)~~ pre-polymer A, thus obtaining an ABA-tri-block pre-polymer, which is subsequently chain-extended using a multifunctional chain-extender.

30. (currently amended): ~~Process according to any of the previous claims 25-29~~ The process of claim 25, wherein said chain-extender is selected from diisocyanate ~~(preferably butanediisocyanate)~~, di-carboxylic acid or diol, optionally in the presence of a coupling agent.

31. (currently amended): ~~Process according to any of the previous claims 25-30~~ The process of claim 25, wherein said chain-extension reaction is performed in a solvent~~, preferably in 1,4-dioxane~~.

32. (currently amended): ~~Use of a copolymer according to any of the claims 1-24 or a copolymer obtainable by a process according to claim 25-31 as a~~ A medical implant which comprises the copolymer of claim 1~~, including porous sponges, tubular devices, membranes, stents, a coating for a medical device, or a drug delivery vehicle~~.

33. (currently amended): ~~Pharmaceutical~~ A pharmaceutical composition for delivery of a bioactive agent comprising ~~a copolymer according to any of the claims 1-24~~ the copolymer of claim 1 loaded with said bioactive agent.

34. (currently amended): ~~Composition according to~~ The composition of claim 33 wherein the bioactive agent is ~~chosen~~ selected from the group consisting of amino acids, (poly)peptides, proteins, nucleic acids, polysaccharides, steroids, growth factors, antigens, chemotherapeutic agents, hormones, antibiotics, antivirals, antifungals, immunosuppressants, antihistamines, anticoagulants, antiphoto-aging agents, melanotropic peptides, anti-inflammatory compounds, antipsychotics, radiation absorbers, decongestants, neuroactive agents, anesthetics, sedatives, vitamins, diagnostics (including radioactive isotopes and fluorescent agents).

35. (new): The medical implant of claim 32 selected from the group consisting of porous sponges, tubular devices, membranes, stents, a coating for a medical device, and a drug delivery vehicle.

36. (new): The process of claim 27, wherein said chain-extender is selected from diisocyanate, di-carboxylic acid or diol, optionally in the presence of a coupling agent.

37. (new): The process of claim 28, wherein said chain-extender is selected from diisocyanate, di-carboxylic acid or diol, optionally in the presence of a coupling agent.

38. (new): The process of claim 29, wherein said chain-extender is selected from diisocyanate, di-carboxylic acid or diol, optionally in the presence of a coupling agent.

39. (new): The process of claim 27, wherein said chain-extension reaction is performed in a solvent.

40. (new): The process of claim 28, wherein said chain-extension reaction is performed in a solvent.

41. (new): The process of claim 29, wherein said chain-extension reaction is performed in a solvent.